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(54) METHOD FOR CONTROLLING MOLD CLAMPING IN MOTOR-DRIVEN

INJECTION MOLDING MACHINE

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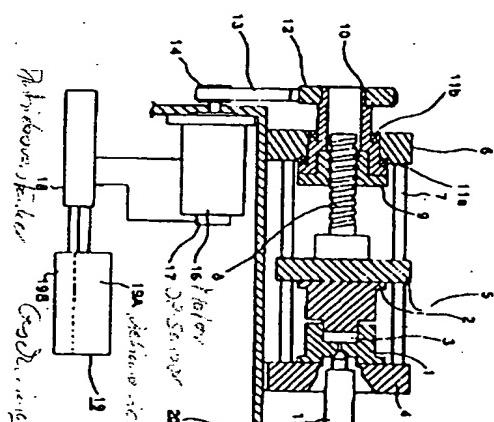
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PURPOSE: To make it possible to control a clamping force wherein a fine change is needed by providing a clamping force just as set torques in a plurality of stages.

CONSTITUTION: A clamping force at the first stage is generated by rotating a motor 16 for clamping based on a set torque at the first stage for a specified time. Then, after a molten resin is injected in a cavity 3 by means of an injection cylinder 15, the torque is changed to a set torque of the second stage and at the beginning of changing to the set torque of the second stage, a speed command for a specified time is output from a speed control part 19B and a torque based on this speed command is added to the above described set torque of the second stage and the motor 16 for clamping is started to rotate. When this rotation is detected by means of a rotation detector 17, it is changed to the set torque of the second stage and rotation for a specified time is performed to generate a clamping force of the second stage. Thereafter, in a similar way, a clasping force of each stage is generated to complete one molding cycle.



1: fixed mold, 2: movable mold, 4: fixed plate, 5: movable plate, 6: clamping housing, 7: tie bar, 8: ball screw, 9: ball nut, 10: rotating shaft, 11a,11b: bearings, 12: pulley, 13: timing belt, 14: pulley with a flange, 18: driver amplifier, 19: control apparatus, 19A: torque control part, 20: bed

LEGENDE zu den Bibliographiedaten (54) Titel der Patontanmeldung

(11) Nummer der JP-A Veröffentlichung

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